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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/549,365  
Filing Date: September 14, 2005  
Appellant(s): MARTIN ET AL.

\_\_\_\_\_  
BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/09/2008 appealing from the Office action mailed 05/30/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US PATENT APPLICATION #2003/0033288 TO SHANAHAN ET AL.

### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2003/0033288 to Shanahan et al (hereafter Shanahan).

#### **Claim 1, 10 and 11:**

Shanahan teaches a method of generating a concept dictionary [See Figure 24 and Figure 6, Item 6110] for use in querying an information system [See Abstract & Paragraph(s) 0160, 0290, 0305, 0540, 0545, 0547, 0551 and 0555], comprising:

- (i) receiving an information search criterion [See Abstract & Paragraph(s) 0160, 0290, 0305, 0540, 0545, 0547, 0551 and 0555];
- (ii) deriving from said received search criterion, using a lexical reference source, at least one different search criterion ["the user is given the ability to specify a plurality of criteria for the search" See Paragraph 0524 wherein "one different search criterion" is the same as a "plurality of criteria"] having related meaning to said received search criterion [See

**Abstract & Paragraph(s) 0218, 0143, 0158, 0160, 0282-0285, and 0476;**

(iii) identifying a set of information in said information system relevant to said received search criterion and a different set of information in said information system relevant to said at least one derived search criterion [**"sets of documents to list the categories"** See **Abstract & Paragraph(s) 0368 & 0410-0430**];

(iv) analyzing the identified sets of information and deriving from similarities and differences therebetween relationships [**"ranking technique"** See **Paragraph 0513 & 0527 wherein the highest rank is the most similar and the lowest rank is the most different**] between said received search criterion and said at least one derived search criterion in the context of said information system [See **Abstract & Paragraph(s) 0366**]; and

(v) storing, in a concept dictionary, information relating to said received and said at least one derived search criterion and to respective said derived relationships there between, for use in querying said information system [See **Abstract & Paragraph(s) 0574-0577**].

*Claims 10 and 11 are rejected on the same basis as claim 1.*

**Claim 2:**

Shanahan teaches wherein, at step (i), receiving an information search criterion comprises selecting an information search criterion stored in said concept dictionary [See **Figure 61 & 62**].

**Claim 3:**

Shanahan teaches wherein, at step (ii), deriving at least one search criterion having related meaning comprises replacing a term of said received search criterion with a related term having a more specific meaning according to said lexical reference source [See Figure 0137, 0242 & 0420].

**Claim 4:**

Shanahan teaches wherein, at step (ii) deriving at least one search criterion having related meaning comprises replacing a term of said received search criterion with a related term having a more general meaning according to said lexical reference source [See Figure 0137, 0242 & 0420]. *Claim 4 contains similar limitations as claim 3 and is similarly rejected.*

**Claim 5:**

Shanahan teaches wherein, at step (ii) deriving at least one search criterion having related meaning comprises replacing a term of said received search criterion with a related term having an equivalent meaning according to said lexical reference source [See Figure 0137, 0242 & 0420]. *Claim 5 contains similar limitations as claim 3 and is similarly rejected.*

**Claim 6:**

Shanahan teaches, wherein, at step (ii), said lexical reference source is a thesaurus [See Figure 0053].

**Claim 7:**

Shanahan teaches, wherein, at step (ii), said lexical reference source is an ontological

database [See Figure 0053 wherein the term “ontology” is used to describe listings of synonyms such as in a Thesaurus].

**Claim 8:**

Shanahan teaches, wherein, at step (ii), a plurality of search criteria are derived, each having related meaning to said received search criterion, and wherein at step (iv), the respective identified sets of information are analyzed to derive relationships between search criteria comprised in said plurality of derived search criteria [See Figure 53, Item 5302 & Paragraph 0366].

**Claim 9:**

Shanahan teaches, wherein, at step (iv), deriving relationships between said search criteria comprises performing fuzzy processing of said derived search criteria and respective said identified sets of information to determine a measure of the generalization and/or specialization of one said search criterion over another in the context of said information system [See Paragraph(s) 0267, 0367, 0368 and 0387-0393].

**(10) Response to Argument**

**A. Summary of Instant Application**

The instant application relates to information retrieval systems, which selects and generate queries, entered by a user and analyzing the results to determine relationships between the queries **(See Appellant's Abstract)**.

**B. Summary of main prior art, Shanahan**

The present invention relates to auto-completing document content, in which, includes defining information, adding entities to a database of entities, receiving an auto-completion request, analyzing content, formulating a query using associated context information; and using the query to identify a set of entities in the database **(See Shanahan Summary of Invention)**.

**C. Arguments & Responses**

On page 10 of the appeal brief submitted on 12/09/2008, appellant mainly argues *Whether Claims 1-11 are anticipated under 35 USC 102(e) by US Patent Publication 2003/0033288 to Shanahan et al. ("Shanahan")?*

**Appellant's Argument #1**

On page 12 appellant mainly argued, "Nowhere in the flow chart of Figure 51 nor the description of the flow chart in paragraph [0513] is there any mention or even a suggestion of "analyzing identified sets of information and deriving from similarities and differences therebetween relationships between said received search criterion and said at least one derived search criterion" as required by independent claims 1 and 11. Rather, as explicitly



stated in paragraph [0513] "the query is submitted to the entity database" and "results from the query are ranked." The cited portion of Shanahan does not disclose that an *analysis is conducted on "identified sets of information and deriving from similarities and differences" - between the sets of information - "relationships between the received search criterion and the at least one derived search criterion,"* as required by the present claims. The cited portion of Shanahan only mentions a single "query" and that the "results from the query are ranked." Thus, it is clear that paragraph [0513] of Shanahan does not disclose (or even suggest for that matter) this claim element".

#### **Examiner's Response to Argument #1**

Examiner is not persuaded. Examiner asserts Shanahan teaching of a "ranking technique" in Paragraph 0513 & 0527 wherein the highest rank is the most similar and the lowest rank is the most different meets applicant's claim limitations. As shown below, Shanahan goes on to further teach in paragraph 0514, a "evaluation criteria" wherein the evaluating steps of Shanahan performs the same functions as the analyzing steps of appellant.

[0514] At 5154, the highest ranked results are evaluated to determine whether any or one in particular satisfies or best satisfies evaluation criteria. The evaluation criteria include information associated with the entity or word being evaluated in the entity database 4214. The entity database includes such information at POS information, text category, and entity type, as shown in FIG. 33. This information is matched against results using an evaluation criteria. An example of evaluation criteria is the following: accept the highest ranking word if the word used in the act 5146 to formulate the query is not found in the first ten elements of the ranked results in 5150. If a result of the query is identified that satisfies the

evaluation criteria, then it is used to correct the word in the text object at 5158. If no result of the query is found to satisfy the criteria at 5154 or the object word has been corrected at 5158, then the process continues at 5160 unless it is the last word in the list.

In addition, Shanahan further teaches, as shown below, in paragraph 0420 "query can be refined". This refinement step of Shanahan also meets applicant's teaching of *"analyzing identified sets of information and deriving from similarities and differences therebetween relationships between said received search criterion and said at least one derived search criterion"*.

[0420] After processing the query by submitting it to an information retrieval system (e.g., Google, Yahoo, NorthernLights), the query can be refined by filtering and/or ranking the results returned by the query mechanism using the classification labels or its associated characteristic vocabulary in a number of ways. For example, results can be ranked from most relevant to least by matching returned document profiles against the classification labels or the characteristic vocabulary of the predicted class by: using a categorizer; or using a similar metric in the case of the characteristic vocabulary, such as the cosine distance or similarity measure base on an LSI transformation of the original feature space. The results of these more precise queries are used to enrich original document content. In one embodiment, documents are enriched by the meta-document server 200 described above, the operation of which involves automatically executing the query, for example, on the Internet, and retrieving the query results and linking these results to the original terms and entities in document content.

MPEP § 2106 states Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55,

44 USPQ2d 1023, 1027-28 (Fed Cir. 1997). Accordingly, examiner maintains the rejection.

**Appellant's Argument #2**

On page 12 appellant mainly argued, "Such a ranking of information providers has nothing to do with *"analyzing identified sets of information and deriving from similarities and differences therebetween relationships between said received search criterion and said at least one derived search criterion"* as required by the present claims".

**Examiner's Response to Argument #2**

Examiner is not persuaded. Appellant is rehashing arguments already presented in Examiner's Response to Argument #1. Nevertheless, examiner maintains Shanahan teaching the same feature of appellants, as shown above. Specifically, Shanahan goes on to teach in paragraph 0514, "ranked results are evaluated" wherein the evaluating steps of Shanahan performs the same functions as the analyzing steps of appellant.

[0514] At 5154, the highest ranked results are evaluated to determine whether any or one in particular satisfies or best satisfies evaluation criteria. The evaluation criteria include information associated with the entity or word being evaluated in the entity database 4214. The entity database includes such information at POS information, text category, and entity type, as shown in FIG. 33. This information is matched against results using an evaluation criteria. An example of evaluation criteria is the following: accept the highest ranking word if the word used in the act 5146 to formulate the query is not found in the first ten elements of the ranked results in 5150. If a result of the query is identified that satisfies the evaluation criteria, then it is used to correct the word in the text object at 5158. If no result of the query is found to satisfy the criteria at 5154 or the object word has been

corrected at 5158, then the process continues at 5160 unless it is the last word in the list.

MPEP § 2106 states Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed Cir. 1997). Accordingly, examiner maintains the rejection.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Sheree N. Brown

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